

CASK

C A B L E S

A DIVISION OF CASK ELECTRIC

PRODUCT CATALOGUE

Solar & Photovoltaic Cables

H1Z2Z2-K copper · Aluminium DC · UL 4703 PV Wire · Connectors and accessories



ABOUT CASK ELECTRIC

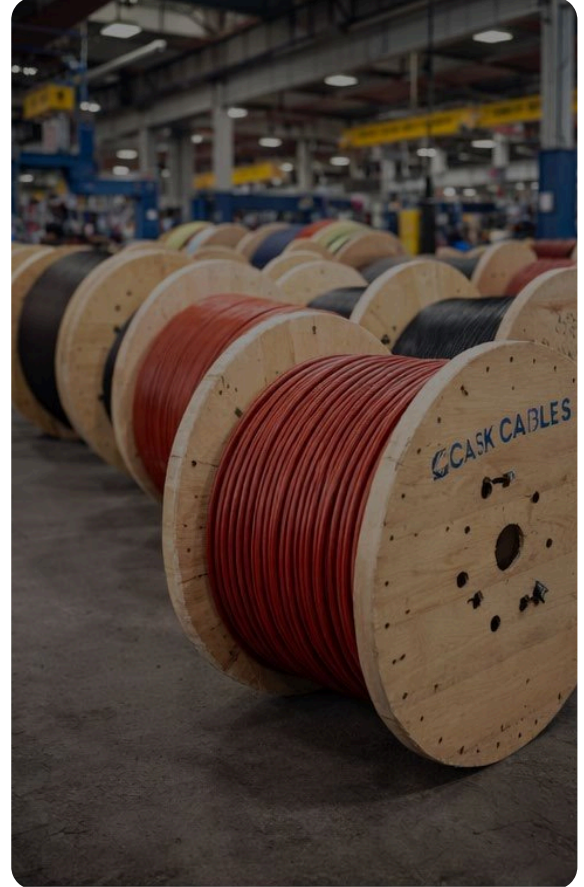
Energy infrastructure from one partner

CASK Electric is an electrical engineering and supply company based in Dilovası, Kocaeli, in the heart of Türkiye's industrial region. We work with utilities, EPC contractors, developers and industry, supplying the products that carry electricity from the power plant to the end user, for projects in Türkiye and abroad.

CASK Cables is the cable division of CASK Electric. It brings power, solar, overhead and fire-resistant cables together under one brand, with one item numbering system used in our catalogues, offers and order confirmations.

WHY CASK CABLES

- ▶ One partner for cables, poles, transformers and panels on the same project
- ▶ Products made to European and international standards
- ▶ Test reports and certificates with every delivery
- ▶ Export packing, drum marking and full project documentation
- ▶ Technical support from cable selection to delivery on site



THE CASK ELECTRIC DIVISIONS

CASK Steel

Steel poles and steel structures for power lines, lighting and infrastructure.

CASK Cables

Power, solar, overhead and fire-resistant cables and conductors.

CASK Power Systems

Distribution transformers, panel boards and switchgear.

ABOUT CASK CABLES

Cables built for 25 years in the sun

CASK Cables, a division of CASK Electric, supplies solar and photovoltaic cables for utility-scale plants, commercial rooftops and residential systems. Every cable in this catalogue is made to the European and international PV cable standards, tested before dispatch and delivered with full documentation for the project file.

1.5 kV DC

RATED VOLTAGE

1.5 – 400 mm²

CONDUCTOR RANGE

-40 ... +90 °C

OPERATING TEMPERATURE

25 years

DESIGN LIFE

OUR COMMITMENT

▶ Made to EN 50618, IEC 62930 and UL 4703

▶ Halogen-free, flame-retardant, low-smoke compounds

▶ Routine tests on every drum before dispatch

▶ Test reports and certificates with each delivery

MARKETS SERVED

▶ Utility-scale solar power plants

▶ Commercial and industrial rooftops

▶ Residential PV systems

▶ Battery storage (BESS) and hybrid systems

▶ Solar street lighting and off-grid sites

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PRODUCT RANGE OVERVIEW

Every DC cable your PV plant needs

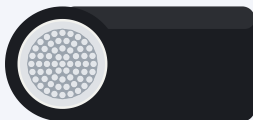
From the module string to the inverter, four product series cover the whole DC side of a photovoltaic system. Item numbers in this catalogue are the same numbers used in our offers and order confirmations.

CSC-SL001 SERIES

H1Z2Z2-K copper solar cable

1 × 1.5 – 240 mm² · 1.5 kV DC
· EN 50618

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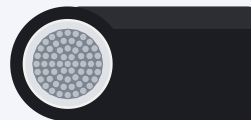


CSC-SL002 SERIES

Aluminium DC solar cable

1 × 35 – 400 mm² · 1.5 kV DC
· IEC 62930

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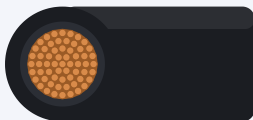


CSC-SL003 SERIES

PV Wire

14 AWG – 4/0 AWG · 2 kV ·
UL 4703

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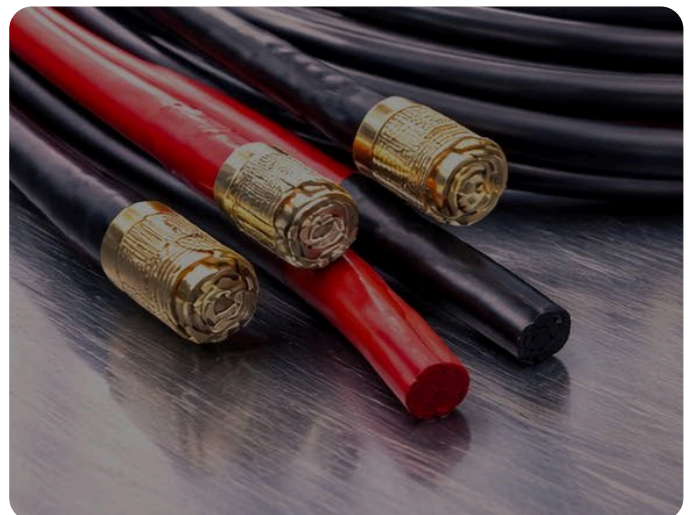


CSC-SL004 SERIES

Connectors & accessories

Connectors, branches,
fuses, tools, ties

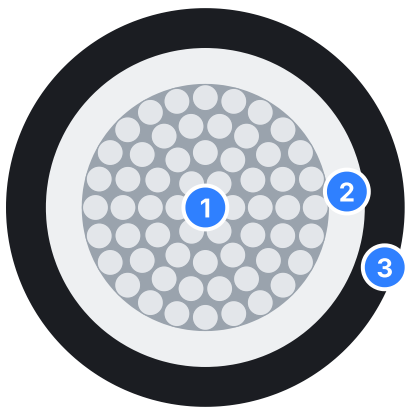
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CONSTRUCTION & MATERIALS

Three layers, one job: decades outdoors

Solar cables live on roofs and in open fields, exposed to UV light, heat, cold, rain and mechanical stress. The materials below are chosen for that life.



- 1 Tinned copper conductor, class 5
- 2 XLPO insulation, halogen-free
- 3 XLPO outer sheath, UV-resistant

Conductor

Fine-stranded tinned annealed copper, class 5 to IEC 60228. Tinning protects the copper from corrosion and makes crimping reliable. Aluminium series: compacted class 2 conductor.

Insulation

Electron-beam cross-linked polyolefin (XLPO), halogen-free. Keeps its properties from -40 °C up to 120 °C conductor temperature.

Sheath

Cross-linked, halogen-free, flame-retardant compound. Resistant to UV, ozone, water, oil, abrasion and ammonia. Black as standard, red or blue on request.

STANDARD DESIGN DATA

Rated voltage	1.0/1.0 kV AC · 1.5/1.5 kV DC
Max. DC voltage	1.8 kV
Test voltage	6.5 kV AC / 15 kV DC, 5 min
Ambient temperature	-40 °C ... +90 °C
Max. conductor temperature	120 °C (20,000 h)
Short-circuit temperature	250 °C, 5 s

INSTALLATION

Min. bending radius, fixed	4 × D
Min. bending radius, moving	5 × D
Installation temperature	≥ -25 °C
Max. pulling force	15 N/mm ²
Laying	Open air, trays, conduits, direct burial (with protection)
Colours	Black (standard), red, blue

CSC-SL001 SERIES

H1Z2Z2-K copper solar cable

The standard string and array cable for PV plants in Europe, the Middle East and Africa. Single core, tinned copper, double-insulated, rated 1.5 kV DC.

- ▶ Double insulation (class II equivalent)
- ▶ UV, ozone and weather resistant to EN 50618
- ▶ Flame retardant to EN 60332-1-2, halogen-free
- ▶ Fits all common PV connector systems

DIMENSIONS AND ELECTRICAL DATA

Item No.	Size (mm ²)	Insulation (mm)	Sheath (mm)	Outer Ø (mm)	Weight (kg/km)	Max. R at 20 °C (Ω/km)
CSC-SL001-001	1 × 1.5	0.7	0.8	4.7	32	13.7
CSC-SL001-002	1 × 2.5	0.7	0.8	5.2	45	8.21
CSC-SL001-003	1 × 4	0.7	0.8	5.8	62	5.09
CSC-SL001-004	1 × 6	0.7	0.8	6.4	85	3.39
CSC-SL001-005	1 × 10	0.7	0.8	7.6	130	1.95
CSC-SL001-006	1 × 16	0.7	0.9	8.9	195	1.24
CSC-SL001-007	1 × 25	0.9	1.0	10.6	295	0.795
CSC-SL001-008	1 × 35	0.9	1.1	11.8	395	0.565
CSC-SL001-009	1 × 50	1.0	1.2	13.8	550	0.393
CSC-SL001-010	1 × 70	1.1	1.2	15.8	760	0.277
CSC-SL001-011	1 × 95	1.1	1.3	17.8	1,010	0.21
CSC-SL001-012	1 × 120	1.2	1.3	19.6	1,260	0.164
CSC-SL001-013	1 × 150	1.4	1.4	21.8	1,560	0.132
CSC-SL001-014	1 × 185	1.6	1.6	24.0	1,920	0.108
CSC-SL001-015	1 × 240	1.7	1.7	27.2	2,480	0.0817

Insulation and sheath: nominal thickness.



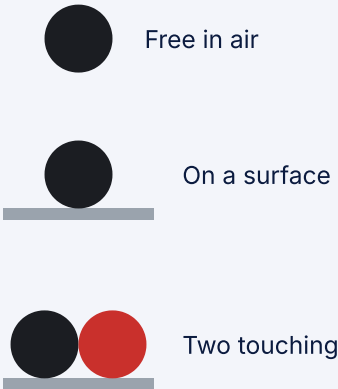
CSC-SL001 · CURRENT RATINGS

Current-carrying capacity

Continuous current at 60 °C ambient and 120 °C conductor temperature, to EN 50618 Annex A. For other ambient temperatures, multiply by the factor below.

Size (mm²)	Single cable, free in air (A)	Single cable on a surface (A)	Two cables touching, on a surface (A)
1 × 1.5	30	29	24
1 × 2.5	41	39	33
1 × 4	55	52	44
1 × 6	70	67	57
1 × 10	98	93	79
1 × 16	132	125	107
1 × 25	176	167	142
1 × 35	218	207	176
1 × 50	276	262	221
1 × 70	347	330	278
1 × 95	416	395	333
1 × 120	488	464	390
1 × 150	566	538	453
1 × 185	644	612	515
1 × 240	775	736	620

INSTALLATION METHODS



AMBIENT TEMPERATURE FACTORS

Ambient (°C)	≤ 60	70	80	90	100	110
Factor	1.00	0.91	0.82	0.71	0.58	0.41

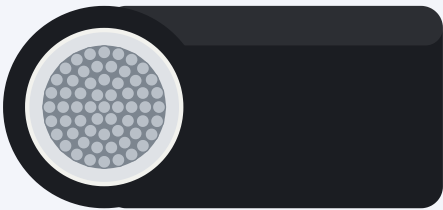
Tip: Cables in direct sun on dark roofs can see ambient temperatures above 70 °C. Our engineers can check cable size and voltage drop for your layout.

CSC-SL002 SERIES

Aluminium DC solar cable

For the long main DC runs between combiner boxes and central inverters in large plants. Aluminium gives the same current at lower weight and lower cost than copper in large sizes.

- ▶ Compacted aluminium conductor, class 2
- ▶ XLPO insulation and UV-resistant XLPO sheath
- ▶ Rated 1.5 kV DC, 90 °C continuous
- ▶ Suitable for trays, ducts and direct burial
- ▶ Use bi-metal lugs when connecting to copper



IEC 62930

IEC 60228 cl. 2

EN 60332-1-2

RoHS

DIMENSIONS AND ELECTRICAL DATA

Item No.	Size (mm²)	Outer Ø (mm)	Weight (kg/km)	Max. R at 20 °C (Ω/km)
CSC-SL002-001	1 × 35	12.0	190	0.868
CSC-SL002-002	1 × 50	13.4	245	0.641
CSC-SL002-003	1 × 70	15.2	320	0.443
CSC-SL002-004	1 × 95	17.0	420	0.32
CSC-SL002-005	1 × 120	18.8	510	0.253
CSC-SL002-006	1 × 150	20.6	625	0.206
CSC-SL002-007	1 × 185	22.8	760	0.164
CSC-SL002-008	1 × 240	25.8	960	0.125
CSC-SL002-009	1 × 300	28.6	1,180	0.1
CSC-SL002-010	1 × 400	32.4	1,500	0.0778

Current ratings depend on laying method and are given in each offer. Twin-core and armoured versions on request.

CSC-SL003 SERIES

PV Wire to UL 4703

Single-conductor photovoltaic wire for projects built to the US National Electrical Code (NEC Article 690) and for clients who specify UL-listed cable.

- ▶ Tinned copper, class B or flexible stranding
- ▶ Rated 2 kV (also available 600 V / 1 kV)
- ▶ 90 °C wet or dry, sunlight resistant, direct burial
- ▶ VW-1 flame test, -40 °C cold bend

SIZES

Item No.	Size	Cross-section (mm ²)	Outer Ø (mm)
CSC-SL003-001	14 AWG	2.08	4.9
CSC-SL003-002	12 AWG	3.31	5.4
CSC-SL003-003	10 AWG	5.26	6.0
CSC-SL003-004	8 AWG	8.37	7.5
CSC-SL003-005	6 AWG	13.3	8.5
CSC-SL003-006	4 AWG	21.2	9.8
CSC-SL003-007	2 AWG	33.6	11.4
CSC-SL003-008	1/0 AWG	53.5	14.0
CSC-SL003-009	2/0 AWG	67.4	15.2
CSC-SL003-010	4/0 AWG	107.2	18.2

Insulation thickness, stranding and ampacity per UL 4703 and NEC Table 310.16; values for your size and voltage are given in each offer.

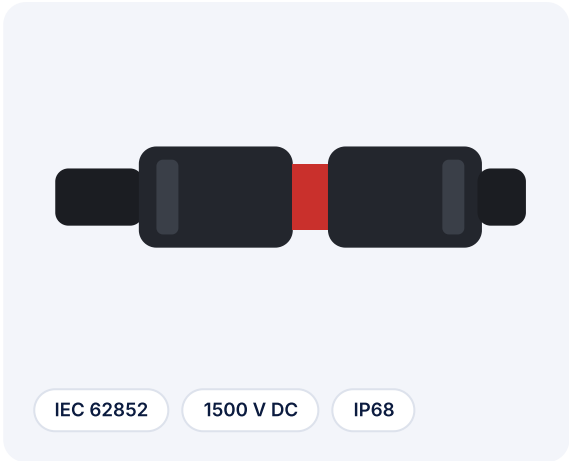


CSC-SL004 SERIES

Connectors & accessories

Everything needed to terminate and fix solar cables on site, supplied together with the cable so one order covers the whole DC side.

- ▶ Connectors rated 1500 V DC, IP68 when mated
- ▶ Contacts for 2.5 – 10 mm² cables
- ▶ Tested to IEC 62852
- ▶ Same brand of connector on both sides of each joint



ITEMS

Item No.	Description
CSC-SL004-001	PV connector pair, 2.5-6 mm ² , 1500 V DC, IP68
CSC-SL004-002	PV connector pair, 10 mm ² , 1500 V DC, IP68
CSC-SL004-003	Y-branch connector set, 2 to 1, 1500 V DC
CSC-SL004-004	Y-branch connector set, 3 to 1, 1500 V DC
CSC-SL004-005	In-line fuse connector, 15 A, 1500 V DC
CSC-SL004-006	In-line fuse connector, 20 A, 1500 V DC
CSC-SL004-007	Crimping tool for PV contacts, 2.5-6 mm ²
CSC-SL004-008	Assembly spanner set for PV connectors
CSC-SL004-009	UV-resistant cable ties, 4.8 × 300 mm, black (pack of 100)
CSC-SL004-010	Stainless steel cable clips for module frames (pack of 100)

Important: Connectors must be crimped with the matching tool and never mixed between brands. Mixed connectors are a leading cause of hot spots and fires in PV plants.

PACKING, DRUMS & MARKING

Delivered ready for site

Standard lengths are listed below. Other lengths, cut lengths and mixed drums are available. Each drum carries a label with item number, size, length, batch and gross/net weight.

Size (mm²)	Packing	Standard lengths (m)
1.5 – 6	Carton reel or drum	100 / 500 / 1,000 / 2,000
10 – 16	Drum	500 / 1,000
25 – 70	Wooden drum	500 / 1,000
95 – 240	Wooden drum	500
Al 35 – 400	Wooden or steel drum	500 / 1,000

SHEATH MARKING EXAMPLE

CASK CABLES · H1Z2Z2-K 1×6 mm² · 1.5 kV DC ·
EN 50618 · 2026 · Ø125 m

Printed every metre with a running length mark. Customer or project name can be added for larger orders.



TESTING & QUALITY ASSURANCE

Tested before it leaves the factory

Routine tests are made on every drum. Type-test reports and certificates for the referenced standards are available for each product and are sent with the offer on request.

Test	Standard	Frequency
Conductor resistance	IEC 60228	Every drum
Voltage test	EN 50618 / EN 50395	Every drum
Spark test on insulation	EN 62230	100 % in line
Dimensions and marking	EN 50396	Every batch
Flame propagation	EN 60332-1-2	Type test
Halogen and acid gas	EN 60754-1/-2	Type test
Smoke density	EN 61034-2	Type test
UV and weather resistance	EN 50618 Annex E	Type test
Ozone resistance	EN 50396	Type test
Damp heat / long-term ageing	EN 60216-2	Type test

APPLICABLE STANDARDS

- ▶ EN 50618 – Cables for PV systems (H1Z2Z2-K)
- ▶ IEC 62930 – Cables for PV systems, 1.5 kV DC
- ▶ UL 4703 – Photovoltaic wire
- ▶ IEC 60228 – Conductors of insulated cables
- ▶ IEC 62852 – Connectors for DC in PV systems
- ▶ EN 60332-1-2 – Flame propagation, single cable
- ▶ EN 60754 / EN 61034 – Acid gas and smoke
- ▶ 2011/65/EU – RoHS
- ▶ ISO 9001 – Quality management



A DIVISION OF CASK ELECTRIC

Let's power your next solar project

Talk to our team about cable selection, sizing and delivery schedules.

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